

NOTES ON ASCLEPIADACEAE, 2

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Summary

The genus *Cryptolepis* R. Br. is recircumscribed to include *Gymnolaema* Benth., *Stomatostemma* N.E. Br., *Batesanthus* N.E. Br. and *Streptomanes* Schumann. New combinations in *Cryptolepis* for African taxa are *C. pendulina* (Venter & D.V. Field) P. Forster, *C. purpureus* (N.E. Br.) P. Forster and *C. newii* (Benth.) P. Forster. *Cryptolepis* is recorded for Australia with *C. grayi* P. Forster, sp. nov. and for New Guinea with *C. nymanii* (Schumann) P. Forster, comb. nov. and *C. papillata* P. Forster, sp. nov. *Gunnessia pepo* P. Forster gen. et sp. nov. is described from north Queensland. Its position within the Asclepiadaceae is discussed. *Marsdenia papuana* Schltr. and *M. klossii* S. Moore are placed in the synonymy of *M. velutina* R. Br. *Tylophora perlaxa* Schltr. is placed in the synonymy of *T. flexuosa* R. Br. Lectotypes are selected for *Marsdenia velutina* and *Tylophora flexuosa* both of which are newly recorded for New Guinea. The new combination *Dischidia torricellensis* (Schltr.) P. Forster based on *Spathidolepis torricellensis* is made.

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Introduction

This is the second in a series of papers to address some of the nomenclatural and taxonomic problems pertaining to the Asclepiadaceae of Australia, Papuaia and Melanesia, prior to taxonomic revisions of the larger genera such as *Tylophora* R. Br. and *Marsdenia* R. Br. In particular, attention is directed to several of the taxa described from the region by Rudolf Schlechter. Schlechter published a great many new names in Asclepiadaceae with a significant number from New Guinea where he undertook extensive field collections in the early 20th century (Loesener 1926). Unfortunately apart from *Hoya* R. Br. and *Dischidia* R. Br., the majority of his types deposited in B were destroyed during the Second World War and as yet the extent of duplicates in other herbaria has not been determined. The loss of the Berlin types is particularly tragic as in many cases (at least for *Hoya* names), Schlechter had appended a set of floral sketches to the specimens. Some of these were later reworked and included in a number of his papers (e.g. Schlechter 1914).

Schlechter described many new taxa, however he tended to base many of these on trivial differences. Hence as research progresses in groups where he described taxa, many of these taxa have been found to be conspecific with more widespread variable taxa (e.g. Rintz 1980).

In the collections cited, those with an asterisk are represented by material preserved in spirit at the herbaria indicated. Where unsighted duplicates have been listed on labels I have listed these as *n.v.* to facilitate curation at other institutions.

1. *CRYPTOLEPIS*

Cryptolepis R. Br. has been traditionally regarded as a small genus in the subfamily Periplocoideae with perhaps no more than a dozen species in tropical Asia and Africa (Bullock 1955). Genera recognised for the African continent that are closely allied to *Cryptolepis* include *Batesanthus* N.E. Br., *Gymnolaema* Benth. and *Stomatostemma* N.E. Br. Many of these small or monotypic genera appear to have been defined on relatively minor characters such as coronal lobe variation and the degree of development of the corolla tube. *Gymnolaema* was considered by Brown (1904) to differ from *Cryptolepis* only in the "very minute coronal-lobes adnate to the filaments of the stamens". *Stomatostemma* was differentiated from *Cryptolepis* by Brown on the basis of the position of the coronal-lobes, these being at the sinuses of adjacent petals in *Stomatostemma* in comparison to further down the corolla tube in *Cryptolepis* s. str. *Batesanthus* was allied by Brown to *Chlorocodon* J.D. Hook., and differed from *Cryptolepis* by lacking coronal lobes and possessing an annulus next to the staminal filaments. A further genus allied to *Cryptolepis* was described by Schumann (1905) as *Streptomanes* based on material collected in New Guinea. Schumann did not note the close relationship of *Streptomanes* s. str. with *Cryptolepis* s. str. and instead allied *Streptomanes* to *Periploca* L. from which he considered it differed in the glabrous anthers, the deeply cleft corona adnate to the corolla and the awl-like anther appendages.

Recognition that two undescribed species of Periplocoideae occur in north Queensland or New Guinea and difficulty in determining their correct generic placement led to an examination of the various genera closely allied to *Cryptolepis*. Characters such as those listed above, have been used for separating species or sections in other subfamilies of the Asclepiadaceae. Consequently they are not regarded as being particularly useful in the definition of genera within the Periplocoideae.

Therefore, the generic concept of *Cryptolepis* has been redefined in this account to include those taxa in Periplocoideae that have salverform, campanulate or rotate corollas with or without coronal lobes of varying length that are not directly fused to the staminal filaments. Such a broader concept is necessary as there is an obvious gradation from species possessing separate subulate coronal lobes in the sinuses between adjacent petals, as in species included in *Stomatostemma* (see Venter & Field 1989), to those with small rounded coronal lobes in the corolla throat (species included in *Cryptolepis* s. str., e.g. *C. javanica* (Blume) Blume, (Blume 1850)), to those completely lacking coronal lobes, but having some form of corolline corona, either in the form of an annulus (e.g. *C. papillata*) or minor lobing around the base of the filaments (e.g. *C. grayi*). A complete review of generic concepts in this subfamily should be undertaken before an infrageneric classification of *Cryptolepis* based on this morphological variation is proposed.

This redefinition of the generic concept of *Cryptolepis* results in the placing of the generic names *Gymnolaema*, *Streptomanes*, *Stomatostemma* and *Batesanthus* in synonymy with it. Other genera that may also be synonymous include *Perithryx* Pierre, *Sacleuxia* Baillon and *Macropelma* Schumann. As I have not seen material or illustrations of the taxa concerned, they are not considered further in this account.

Cryptolepis R. Br., Asclepiadeae 58 (1810). **Type:** *C. buchananii* Roemer & Schultes R. Br., Mem. Wern. Nat. Hist. Soc. 1: 69 (1811); Benth. in Benth. & J.D. Hook., Gen. pl. 2: 740 (1876); J.D. Hook., Fl. Brit. India 4: 5-6 (1885); Bruce, Kew Bull. 1946: 46-48 (1946); Bullock, Kew Bull. 1955: 279-282 (1955); Backer & Bakhuizen van den Brink, Fl. Java 3: 250 (1965); Ali, Fl. Pakistan 150: 54-55 (1981).

Leposma Blume, Bijdr. 1049 (1826-27). **Type:** *L. javanicum* Blume

Lepistoma Blume, Fl. Javae 7 (1828). **Type:** as for *Leposma*
Decne. in DC., Prodr. 8: 497 (1844).

Ectadiopsis Benth. in Benth. & J.D. Hook., Gen. pl. 2: 741 (1876). **Type:** *Ectadium oblongifolium* Meissner (= *Ectadiopsis oblongifolia* (Meissner) Schltr.), (lectotype designated by Bullock).
Bullock, Kew Bull. 1955: 267-279 (1955).

Gymnolaema Benth. in Benth. & J.D. Hook., Gen. pl. 2: 740 (1876), **synon. nov.**

Type: *G. newii* Benth.

N.E. Br. in Dyer, Fl. trop. Afr. 4(1): 241 (1904).

Batesanthus N.E. Br. in J.D. Hook., Icon. pl. t. 2500 (1896), **synon. nov.** **Type:** *B. purpureus* N.E. Br.

N.E. Br. in Dyer, Fl. trop. Afr. 4(1): 253–254 (1904).

Stomatostemma N.E. Br. in Dyer, Fl. trop. Afr. 4(1): 252 (1904), **synon. nov.** **Type:**

Cryptolepis monteiroae N.E. Br. (= *Stomatostemma monteiroae* (Oliver) N.E. Br.)

Streptomanes Schumann in Schumann & Lauterb., Nachträge Fl. Schutzgeb. Südsee 352 (1905), **synon. nov.** **Type:** *S. nymanii* Schumann

Perennial shrubs, lianes or scramblers with white latex, often glabrous; indumentum sparse if present. Small stipules at each node. Leaves opposite, petiolate; lamina linear-lanceolate, lanceolate, ovate, elliptic or oblong; petiole grooved; extrafloral nectaries absent at lamina base. Inflorescence a much branched, extra-axillary cyme bearing 1–many fascicles of 1–many flowers. Flowers salver-shaped, campanulate or rotate. Sepals usually with basal glands. Corolla tube cylindrical-urceolate; petals 5, often dextrorse in bud, patent at anthesis. Corolline corona comprising 5 free lobes opposite the sinuses of adjacent petals or at the top of the corolla tube, or forming a collar around the filament bases or an annulus on the corolla tube. Staminal corona absent. Stamens 5, inserted slightly above the corolla tube base, alternate with the petals, connate or closely adnate at base, free for most of length. Anthers dehiscing longitudinally, with apical appendages which are sometimes elongated and twisted together. Translators spatulate. Pollen granular, organised in tetrads and loosely cohering into masses appressed against the broadened upper ends of the translators. Ovaries free, glabrous. Style-head conical, pentagonal in transverse section. Follicle widely divaricate, fusiform to fusiform-ovoid, smooth; seeds comose.

10–20 species in Africa, Asia, Malesia and Australia.

Cryptolepis has not been recorded for Australia or New Guinea previously. Australia has one endemic species and New Guinea has two. It is the third native genus in the subfamily Periplocoideae to be recognised for the region. The other genera are *Finlaysonia* Wallich (Forster 1989) and *Gymnanthera* R. Br.

Key to species of *Cryptolepis* in New Guinea

- | | |
|--|------------------------|
| 1. Lamina elliptic to ovate, secondary vein pairs in lamina 11–13; corolla not papillate | 1. <i>C. nymanii</i> |
| Lamina lanceolate, secondary vein pairs in lamina 27–30; corolla papillate | 2. <i>C. papillata</i> |

1. *Cryptolepis nymanii* (Schumann) P. Forster **comb. nov.**

Streptomanes nymanii Schumann in Schumann & Lauterb., Nachträge Fl. Schutzgeb. Südsee 352 (1905). **Type:** Stephansort, Kaiser-Wilhelmsland, *Nyman* 1020 (iso: UPS!).

Woody liane with white latex. Stems cylindrical, to several metres long, to 4 mm diameter, glabrous; internode length variable to 18 cm. Leaves petiolate, glabrous; lamina elliptic to ovate, up to 13 cm long and 8 cm wide, dark glossy green adaxially, light green abaxially, base rounded, tip acuminate, with 11–13 secondary vein pairs prominent below; petiole grooved on top, up to 30 mm long and 1 mm diameter. Cymes borne on top 2–5 nodes. Cymes much branched with many fascicles, up to 11 cm long and 13 cm wide; each fascicle 1–many-flowered; bracts lanceolate, c. 1 mm long and 0.25 mm wide, glabrous; peduncle 3–5 cm long, c. 2 mm diameter, glabrous. Flower rotate, c. 10 mm long and 12 mm diameter; pedicels 5–8 mm long, c. 0.25 mm diameter, glabrous. Sepals ovate, green, c. 2 mm long and 2 mm wide, glabrous and with usually 1 gland at base on adaxial surface. Petals c. 10 mm long, 2–2.5 mm wide, dextrorse in bud and at anthesis, lanceolate, glabrous, internally yellow to golden brown or orange, externally greenish white. Corolline corona of 5 separate bifid lobes; each lobe c. 0.75 mm long and 0.75 mm wide, fused to base of anther filament. Filaments each c. 0.25 mm long

and 0.2 mm wide. Anthers incurved over top of style-head and intertwined but not fused to each other, c. 1 mm long and 0.5 mm wide, ending in a lanceolate appendage c. 0.75 mm long. Style-head c. 0.25 mm long and 1 mm diameter, on style c. 0.75 mm long and 0.25 diameter. Translators not seen. Pollen masses aggregated into groups c. 1 mm long and 0.25 mm wide; pollen tetrads globular, 0.08–0.1 mm diameter. Ovaries free, c. 1.5 mm long and 1.5 mm wide at base, glabrous. Follicles and seed not seen. **Figs 1 & 4.**

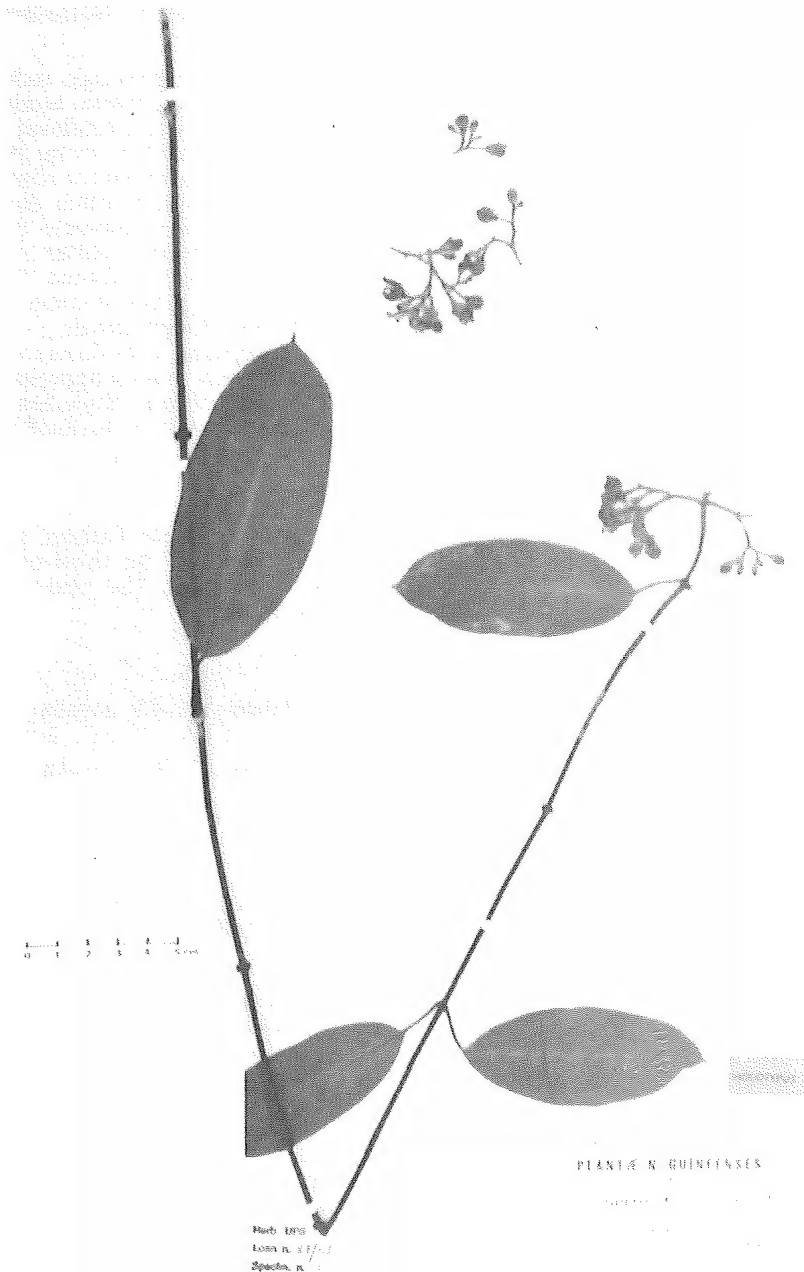


Fig. 1. Isotype of *Streptomanes nymanii* Schumann (Nyman 1020) at UPS.

Specimens examined. Papua New Guinea. MOROBE DISTRICT: McAdam Park, 4 miles [6.4 km] from Wau, 7°20'S, 146°45'E, Oct 1964, *Womersley* NGF19427 (BRI; A,BO,CANB,K,L,LAE,NSW,PNH,SING,UH *n.v.*); Taun Ck L.A., Bulolo, Oct 1965, *Streimann & Kairo* NGF21183 (BRI;L; A,BISH,BO,CANB, K,LAE,NSW,PNH, SING,UH,US *n.v.*); Below Dengalu Village, 7°10'S, 146°40'E, Jan 1964, *Millar* NGF23017 (BRI; L,LAE *n.v.*); Busu River, c. 13 miles [22 km] N of Lae, Jun 1963, *Hartley* 11926 (BRI; CANB *n.v.*). CENTRAL DISTRICT: on ridge below Boridi Village, 9°05'S, 147°38'E, Oct 1973, *Foreman & Vinas* LAE60241 (BRI; A,CANB,L,LAE *n.v.*).

Distribution and habitat: Known only from the Morobe and Central Districts of Papua New Guinea (**Map 1**), where it has been recorded from montane forest dominated by *Castanopsis* sp. at altitudes 1000–1400 m.

Phenology: Flowers have been recorded throughout the year.

Notes: While the original set of Nyman's collections is at UPS, the material of *Nyman* 1020 at that institution is designated as an isotype as Schlechter's holotypes were usually deposited at B. No material is extant at B.

Conservation status: Not ascertained.

Ethnobotanical use: Millar notes on the label for NGF23017 that the local name among people of the Patep-Buangs dialect was 'Teta'. They used the stems for making rope.

2. *Cryptolepis papillata* P. Forster, *sp. nov.* affinis *C. nymanii* (Schumann) P. Forster a qua foliis lanceolatis venatione obscura, utroque costae 27–30 venis secundariis praeditis, petalis triangularibus papillatis 4–5 mm longis et c. 6 mm latis, corona corollina annulum papillatum c. 4 mm diam. faciente, differt. **Typus:** Partep Ck, Lae–Wau road, Bulolo Valley, Morobe District, Papua New Guinea, November 1955, *Womersley* NGF7821 (holo: BRI; iso: LAE *n.v.*).

Woody liane with white latex. Stems cylindrical, to 2 mm diameter, glabrous; internodes variable in length to 4 cm long. Leaves petiolate, glabrous; lamina lanceolate, up to 13 cm long and 4 cm wide; tip acuminate; base cuneate; midrib sunken above; secondary veins 27–30 on each side of and at 90° to the midrib and obscure above and below; petiole grooved above, up to 7 mm long and 1 mm diameter, glabrous. Cymes borne on uppermost 2–5 nodes. Cyme up to 2 cm long and wide, comprising 2–3 fascicles; each fascicle with up to 5 flowers; bracts lanceolate, c. 1 mm long and 0.5 mm wide, glabrous; peduncle cylindrical, c. 4 mm long and 1 mm diameter, glabrous. Flower rotate, c. 5 mm long and 12 mm diameter; pedicels 3–4 mm long and c. 1 mm diameter, glabrous. Sepals ovate, c. 2 mm long and 1.5 mm wide, glabrous and lacking glands at base. Corolla reddish orange, gold or orange-brown internally; tube c. 7 mm diameter and 4 mm long; petals triangular, 4–5 mm long and c. 6 mm wide, externally glabrous, internally papillate. Corolline corona consisting of a c. 4 mm diameter raised annulus of shortly papillate tissue around the filaments. Staminal column c. 2 mm long and 1.5 mm diameter. Filaments c. 1 mm long and 0.25 mm wide. Anthers connivent on style-head but not fused to it; each anther c. 1 mm long and 0.5 mm wide, appendage lanceolate-ovate, c. 0.5 mm long. Style-head c. 1 mm long and 1 mm diameter. Ovaries c. 1 mm long and 1 mm wide, glabrous. Translator spatulate, 0.7–0.85 mm long, 0.2–0.3 mm wide at the end with pollen, c. 0.05 mm wide at non-pollen bearing end. Pollen tetrads ovoid, c. 0.04 mm long and 0.03 mm wide. Follicles and seed not seen. **Fig. 2.**

Specimens examined. Papua New Guinea. MOROBE DISTRICT: Partep, Wau–Lae road, Oct 1961, *Womersley* [AQ217386] (BRI); Patep River, 7°00'S, 146°40'E, Dec 1961, *Millar* NGF13878 (BRI; LAE *n.v.*); Patep Ck, 7°00'S, 146°35'E, Jan 1964, *Millar* NGF18876 (BRI; CANB,L,LAE *n.v.*).

Distribution and habitat: *C. papillata* is known only from Partep Ck area in the Morobe District of Papua New Guinea (**Map 1**) where it has been collected growing over trees on the creek banks.

Phenology: Flowers have been recorded from October to January, fruiting probably occurs 2–3 months later.

Notes: The papillate corolla, corolline corona forming an annulus and the obscurely veined leaves of this species are its most distinctive features.

Conservation status: Not ascertained.

Etymology: Named for the papillate nature of the corolla.



Fig. 2. Holotype of *Cryptolepis papillata* P. Forster (Womersley NGF7821) at BRI.

***Cryptolepis* in Australia**

***Cryptolepis grayi* P. Forster sp. nov.** affinis *C. nymanii* (Schumann) P. Forster, a qua foliorum utroque costae 13–15 venis secundariis, corolla marronina, petalis c. 12 mm longis, c. 4 mm latis, corona corollina lobis 5 bifidis et collum circa basem styli faciente, antheris appendicibus elongatis usque 1 mm longis, filamentis c. 3.5 mm longis et 0.5 mm diam., stylo elongato usque 2 mm longo, differt. **Typus:** Tolga Scrub, 17°14'S, 145°28'E, 9 November 1979, *B. Gray* 1561 (holo: QRS; iso: BRI).

Woody liane with white latex. Stems cylindrical, to several metres long, to 5 mm diameter, deep green ageing grey, glabrous; internode length variable to 15 cm. Leaves petiolate, glabrous; lamina elliptic-oblong, up to 15 cm long and 5 cm wide, base cuneate, tip acute to acuminate, with 13–15 secondary vein pairs prominent below, dark glossy green above, paler grey-green below; petiole 10–25 mm long and c. 1 mm diameter. Cymes borne on uppermost 2–5 nodes. Cymes much branched, to 15 cm long and 15 cm wide; fascicles with 1–many flowers; bracts linear-lanceolate, c. 2 mm long, 0.5–1 mm wide, glabrous; peduncle up to 6 cm long and 2 mm diameter, green, glabrous. Flower rotate, c. 15 mm long and 25 mm diameter; pedicels 7–8 mm long, c. 1 mm diameter, green, glabrous. Sepals lanceolate, 3–4 mm long, 2–3 mm wide, glabrous and lacking glands at base. Corolla tube obsolete; petals dextrorse in bud and at anthesis, lanceolate, c. 12 mm long and 4 mm wide, glabrous, internally maroon, externally cream. Corolline corona consisting of raised tissue around the stamen filaments and style base, comprising 5 separate bifid lobes and a collar around the base of the style; each lobe c. 1.5 mm long and 2 mm wide, fused to base of stamen filament. Filaments fused to base of corolla and alternate with petals, each c. 3.5 mm long and 0.5 mm diameter. Anthers c. 2 mm long and 1.5 mm wide, curved in over top of style-head and intertwined but not fused to each other; ending in a lanceolate appendage c. 1 mm long. Staminal column c. 4 mm long and 3.5 mm diameter. Style-head c. 2 mm long and 3.5 mm diameter, on style c. 2 mm long and 2 mm diameter. Translators spatulate 2–2.25 mm long and 0.2–0.25 mm wide at end bearing pollen, stem 0.15–0.17 mm wide. Pollen masses aggregated into group c. 1–1.5 mm long and 0.5 mm wide; pollen tetrads globular, c. 0.25 mm diameter. Ovaries free, c. 3 mm long, c. 2 mm wide at base and 1.5 mm wide at top, glabrous. Follicle woody, ovoid-fusiform c. 90 mm long and 20 mm diameter, glabrous, tip slightly hooked. Seed oblong, brown, c. 6 mm long and 3 mm wide; coma attached to micropylar end of seed, white, c. 15 mm long. **Figs 3 & 4.**

Specimens examined. Queensland, COOK DISTRICT: Tolga Scrub, 17°14'S, 145°28'E, Mar 1979, *Gray* 20086V (QRS); ditto, Aug 1980, *Gray* 1778 (QRS); ditto, Feb 1980, *Gray* 1650 (QRS); ditto, Mar 1988, *Forster* 3849 (BRI).

Distribution and habitat: Known only from the Tolga Scrub near Atherton (**Map 1**) where it grows as a canopy liane in complex notophyll vine forest on a basaltic red earth (Tracey 1982).

Notes: The corolline corona forming a collar around the base of the style and the long filaments are the most distinctive features of this species. The large maroon flowers make this potentially a most attractive ornamental plant.

Conservation status: The particular class of complex notophyll vine forest in which this species grows was at one time more common on the Atherton Tableland, but has been almost completely cleared. The Tolga Scrub Environmental Park is a very small fragment and may not offer a viable long term reserve for this species. Conservation coding of 2E (after Briggs & Leigh 1988).

Etymology: Named for Bruce Gray of Atherton who discovered this plant and who collected flowering and fruiting material.

Table 1 presents the main characters by which *C. grayi*, *C. nymanii*, *C. papillata* and *C. buchananii* may be distinguished. The comparison with *C. buchananii* is made, as the type of this name typifies the genus and the species is also relatively close geographically. The material of *C. javanicum* (see Blume 1850) examined is insufficient to include a comparison of that species, however it is allied to *C. buchananii* and differs mainly in leaf morphology, viz the venation and size.

Table 1. Comparison of diagnostic characters for *Cryptolepis buchananii* Roemer & Schultes, *C. grayi* P. Forster, *C. nymanii* (Schumann) P. Forster and *C. papillata* P. Forster.

Character	<i>C. buchananii</i>	<i>C. grayi</i>	<i>C. nymanii</i>	<i>C. papillata</i>
lamina shape	elliptic-oblong	elliptic-oblong	elliptic-to ovate	lanceolate
number of secondary veins in lamina	20–25	13–15	11–13	27–30
leaves discolourous when dry, venation prominent below	yes	yes	yes	no
flower diameter (mm)	c. 10	c. 25	c. 12	c. 12
petal colour	yellow to greenish yellow	maroon	yellow golden brown or orange	orange-brown, dull orange
petal length	c. 6 × 1.5	c. 12 × 4	c. 10 × 2–2.5	c. 4–5 × 6
petals with papillae	absent	absent	absent	present
corolline corona around base of filaments	present	absent	absent	absent
rudimentary corona around base of filaments	absent	present	present	absent
raised papillate annulus extending to start of petals	absent	absent	absent	present
filament length, diameter (mm)	c. 0.25, 0.25	c. 3.5, 0.5	c. 0.25, 0.2	c. 1, 0.25
anther appendage length (mm)	c. 0.25	c. 1.00	c. 0.75	c. 0.25

Cryptolepis buchananii Roemer & Schultes, Syst. veg. 4: 409 (1819). **Type:** India orientali legit Franc. *Buchanan* (holo: BM, *n.v.*). J.D. Hook., Fl. Brit. India 4: 5 (1885); Ali, Fl. Pakistan 150: 55 (1981).

Specimens examined. Nepal. Chitwan N.P., NE section of the park, south of Rapti River, 27°33'N, 84°29'E, May 1976, *Troth* 756 (CANB; US *n.v.*). Burma. Nyaungshwe, May 1958, *McKee* 6199 (CANB). Sri Lanka. CENTRAL PROVINCE: c. 10 miles [17 km] W of Mahiyangaru on the Kandy road, near mile marker 34/2, Nov 1974, *Davidse* & *Jayasuriya* 8427 (BRI); c. 4 miles [7 km] E of Pallegama, Oct 1974, *Davidse* 7387 (BRI).

Cryptolepis javanicum (Blume) Blume, Mus. bot. 2: 146 (1850); *Leposma javanicum* Blume, Bijdr. 1049 (1826–27); *Lepistoma javanicum* (Blume) Blume, Fl. Javae 7 (1828). **Type:** Kalkrotsen, Koeripan, *Blume* (holo: L(898166–349)).

Specimens examined. Java. Soerabaja, Dec 1924, *Dorgelo* 3167 (L); Res. Pekalongan, Soebah, Apr 1897, *Koorders* 27295 (L; BO *n.v.*); Apr 1935, *Coert* 1206 (L).

Transfers into *Cryptolepis* of a number of names for African taxa are made here, based on the original descriptions and accompanying illustrations.

Cryptolepis pendulina (Venter & D.V. Field) P. Forster **comb. nov.**

Stomatostemma pendulina Venter & D.V. Field, Bot. J. Linn. Soc. 99: 398 (1989). **Type:** Mozambique, Northern District, 17.6 km E of Namina, 24 August 1962, *Leach* & *Schelp* 11441 (holo: K; iso: SRGH) (*vide* Venter & Field *loc. cit.*)

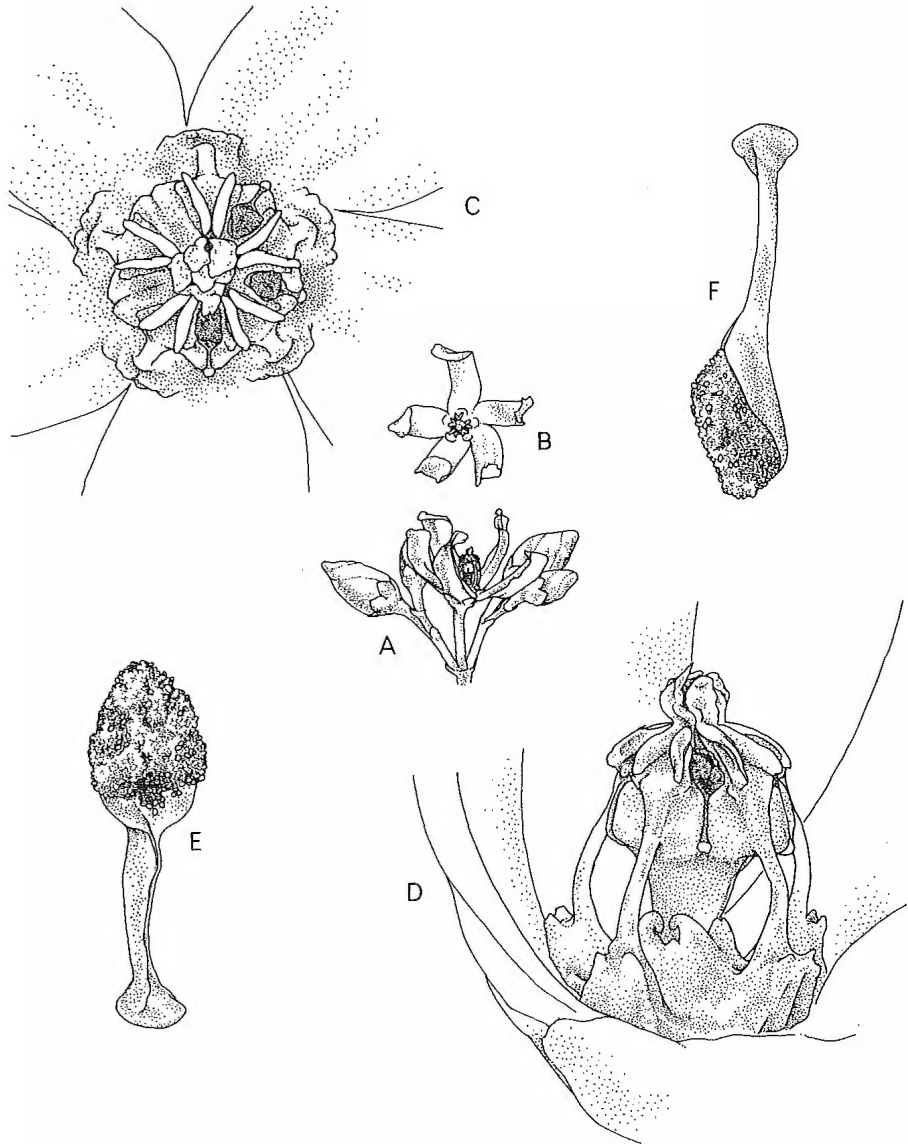


Fig. 3. *Cryptolepis grayi*: A. lateral view of single fascicle from cyme $\times 1$. B. apical view of flower $\times 1$. C. apical view of corona and stamens $\times 6$. D. lateral view of corona, stamens and style $\times 6$. E. front view of translator with granular pollen $\times 20$. F. lateral view of translator with granular pollen $\times 20$. All from spirit material of Gray 1561. Del. K. Harold.

***Cryptolepis purpureus* (N.E. Br.) P. Forster comb. nov.**

Batesanthus purpureus N.E. Br. in J.D. Hook., Icon. pl. 25: t. 2500 (1896). **Type:** Efulen, Cameroons, Bates 383 (K, *fide* J.D. Hook. *loc. cit.*).

***Cryptolepis newii* (Benth.) P. Forster comb. nov.**

Gymnolaema newii Benth. in J.D. Hook., Icon. pl. 12: 74–75, t. 1186 (1876). **Type:** East tropical Africa, on Kilimanjaro mountain, C. New (K, *fide* Benth. *loc. cit.*).

2. GUNNESSIA

While resident at Weipa, Ann Guinness (née Morton) undertook intensive collecting of the local flora. This resulted in many new records from an area that had been botanically poorly known. Among these collections was material of an asclepiad that was not referable to any of the genera currently known to occur in Australia. Subsequently, further collections of this plant have been made on Cape York Peninsula, revealing that it is quite common in deciduous vine thickets. This material is not referable to any other genus of Asclepiadaceae and is described here as both a new genus and species belonging to the subfamily Asclepiadoideae.

Gunnessia pepo P. Forster gen. et sp. nov.

Liana lignea perennis laticis albo. Caules cylindrici indumento denso in vittis longitudinalibus duobus restricto. Folia petiolata; lamina late lanceolata-ovata, base cordata usque rotundata, apice acuminata venis secundariis 5–6 infra laminae pallide cremeis et elevatis, nectariis extrafloralibus 6 basi praedita. Flores in nodis proxime apicem caulis portati. Cymae umbelliformes extra-axillares. Pedicelli indumento in vittis longitudinalibus duobus restricto. Flores globosi. Sepala triangularia, pilis uniseriatis parvis, glandibus in marginibus carentia. Corolla segmentis praeter apices connatis, tubo globoso depresso, extus papillato usque laevi, intus laevi, apicibus segmentorum acutis recurvatis extus intusque papillatis. Corona 2-seriata, serie exteriori ad basem columnae staminalis affixa, ex lobis exterioribus 5 incurvis spathulatis in annulum connatis constanti; serie interiore ex tubo parum carunculo interne, columnam staminalem cingenti, lobis 5 irregulatis denticulatis ab apice recurvatis et lobis 5 parvis cum corpusculi alternantibus circum medium tubi et ad angulum 90° cum eo constanti. Pollinia globosa, erecta usque horizontalia, sine margine ullo pellucido, aurea; corpusculum oblongum; caudiculae prope medium geniculatae ad basem corpusculum affixae. Folliculi binati, fusiforme-ovati. Semina ovata, comosa.

Typus: 1 km S of Cape York, 10°42'S, 142°32'E, 11 February 1986, *B. Gray* 4268 (holo: QRS*; iso: BRI*).

Woody perennial liane, with white latex. Stems cylindrical, to 6–7 m long and 6 mm diameter, grey-green ageing grey; with dense indumentum restricted to two longitudinal bands; internode length variable to 10 cm. Leaves petiolate; lamina broadly lanceolate-ovate, up to 15 cm long and 10 cm wide, base cordate to rounded, tip acuminate, upper surface grey-green, pale bluish grey abaxially; secondary veins 5 or 6, pale cream and raised abaxially; petiole up to 35 mm long and c. 2 mm diameter; extrafloral nectaries 6 at base of lamina. Cymes borne on nodes directly below stem apex, extra-axillary, umbelliform, 1–8-flowered; bracts triangular, c. 1 mm long and 0.25 mm wide, with sparse to dense indumentum; peduncle to 3.5 mm long, c. 1.5 mm diameter, grey-green, with short, sparse indumentum. Flowers globose, 3–4 mm long, 15–16 mm diameter; pedicels c. 6 mm long and 1 mm diameter, grey-green, with short sparse to dense indumentum restricted to two longitudinal bands. Sepals triangular, c. 2.5 mm long and 2 mm wide, ciliate, calycine glands absent. Corolla pale yellow to cream, segments fused apart from tips, tube depressed globose, papillate to smooth externally, smooth internally, 3–4 mm long and 15–16 mm diameter; tips acute, recurved, c. 1 mm long and 1 mm wide, papillate internally and externally. Corona pale yellow to cream, in 2 series. Outer coronal series attached to base of staminal column, comprising 5 lobes fused into an annulus c. 2 mm high and 3 mm diameter; each lobe incurved, spathulate, c. 1 mm long and 1 mm wide. Inner coronal series comprising a tube surrounding the staminal column, slightly carunculate internally, c. 2 mm long and 3 mm diameter, with 5 irregularly toothed lobes recurving back from the top of the tube; each lobe c. 0.5 mm long and 0.5 mm wide; halfway down the tube are 5 smaller lobes alternate with the corpuscles, that are at 90° to the tube wall. Staminal column c. 1.5 mm long and 1.5 mm diameter. Anther appendages acute, c. 0.5 mm long and 0.5 mm wide. Slit between anther wings c. 0.5 mm long. Style-head depressed globose, not exceeding anthers, c. 1 mm diameter. Pollinaria c. 0.2 mm long and 0.6 mm wide; pollinia globose, held erect to horizontal, lacking any pellucid margin, c. 0.2 mm long and 0.15 mm wide, golden; corpusculum oblong, 0.1–0.11 mm long, c. 0.05 mm wide, tan; caudicles geniculate near middle, attached to bottom of corpusculum, c. 0.1 mm long and 0.03 mm wide. Follicles paired, fusiform-ovoid, ribbed along suture, to 8 cm long and 2.5–3 cm wide. Seeds ovate, 8–9 mm long, 4–6 mm wide, tan; coma 20–25 mm long, white. **Figs 4 & 5.**

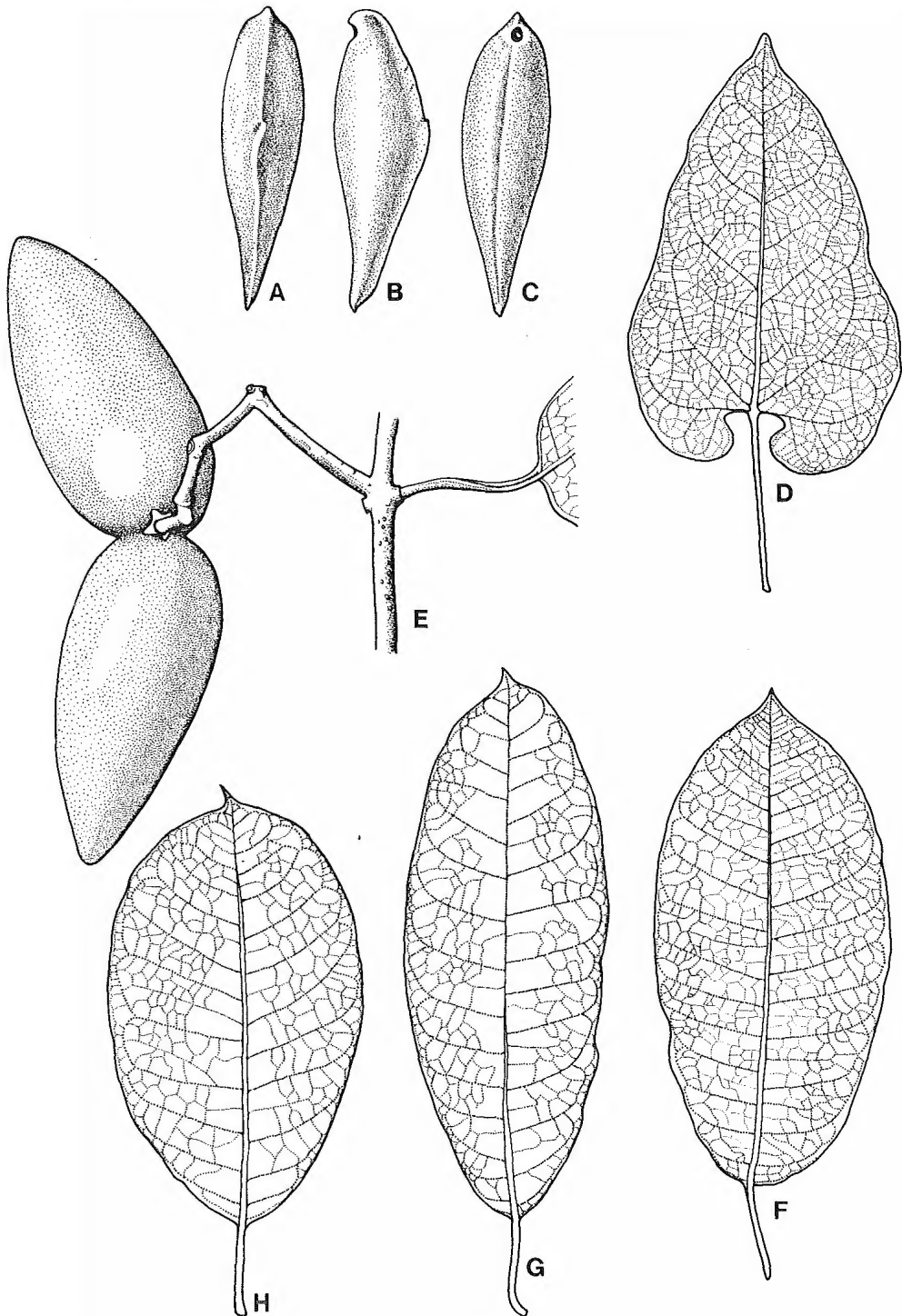


Fig. 4. A–D. *Gunnessia pepo*: A. apical view of fruit showing region of suture $\times 0.55$. B. lateral view of fruit showing keeled area of suture $\times 0.55$. C. ventral view of fruit $\times 0.55$. D. abaxial leaf surface showing detail of venation $\times 0.55$. E–F. *Cryptolepis grayi*: F. ventral view of twin-follicle $\times 0.55$. E. abaxial leaf surface showing detail of venation $\times 0.55$. G–H. *Cryptolepis nymanii*: G. abaxial leaf surface showing detail of venation $\times 0.55$. H. abaxial leaf surface showing detail of venation $\times 0.55$. A–C, O'Reilly [AQ456952] D, Forster 4416 & Liddle; E, F, Forster 3849; G, Womersley NGF19427; H, Streimann & Kairo NGF21183. Del. L.G. Jessup.

Specimens examined. Queensland. COOK DISTRICT: c. 6 km S of Cape York, 10°42'S, 142°32'E, Feb 1986, *Jones* 2311 (BRI); 2.7 km past Lockerbie HS site on road to Cape York, 10°47'S, 142°29'E, Jun 1988, *Forster* 4416 & *Liddle* (BRI); Myerfield road from Weipa to Stone Crossing, Wenlock River, 12°26'S, 142°05'E, Nov 1986, *Jessup* 812 (BRI); Kennedy Hill Gorge, 12°28'S, 143°16'E, Jun 1989, *Forster* 5393 (BRI); 62.2 km past Moreton Telegraph Station on Carron Valley road, 12°30'S, 143°06'E, Jun 1988, *Forster* 4577 (BRI); 44.4 km east by road of Maloney's Springs, 12°30'S, 143°15'E, Jun 1989, *Forster* 5432 (BRI); Unigan Reserve, Weipa, 12°36'S, 141°55'E, Jan 1989, *O'Reilly* [AQ456946] (BRI*); Beach Flats area, Rocky Point, Weipa, 12°36'S, 141°51'E, Feb 1989, *O'Reilly* [AQ456953] (BRI*); Rocky Point, Weipa, 12°37'S, 141°52'E, Dec 1988, *O'Reilly* [AQ456948] (BRI*), ditto, Jan 1989, *O'Reilly* [AQ456949] (BRI*); Lake McLeod, Weipa, Feb 1989, *O'Reilly* [AQ456944] (BRI*); Lake Patricia, Weipa, 12°39'S, 141°50'E, Apr 1988, *Forster* 4076 & *Liddle* (BRI,K); Meeka Scrub near Andoom, 12 NNW of Lorim Pt, 12°34'S, 141°49'E, Apr 1988, *Forster* 4080 & *Liddle* (BRI*); ditto, Dec 1980, *Morton* 938 *et al.* (BRI,QRS); Mt White, Coen, 13°56'S, 143°11'E, Jun 1989, *Forster* 5526 (BRI,DNA).

Distribution and habitat: Presently known only from far north Queensland, in the vicinity of Weipa, Bamaga (Lockerbie Scrub), east of Moreton Telegraph Station and from Mt White at Coen (**Map 1**). Plants are present as canopy lianes and occur in association with other asclepiadaceous vines such as *Marsdenia velutina* R. Br. (which is superficially similar in appearance), *Cynanchum leptolepis* Benth., *Ceropegia cumingiana* Decne., *Tylophora benthamii* Tsiang, *Secamone elliptica* R. Br., *Gymnema geminatum* R. Br., *Toxocarpus* sp. and *Marsdenia cymulosa* Benth. The community type is deciduous vine thicket. At Lake Patricia, the soil is a deep sand with organic matter, whereas at the Meeka Scrub, it is a red laterite and at Lockerbie a red soil similar in texture to krasnozems.

Phenology: Flowering from December to March, fruiting 2–3 months later.

Notes: This species represents a remarkable new genus of asclepiad. It does not appear to be closely allied to any of the other genera that occur in Australia, New Guinea or Asia with the most distinctive features being the globose corolla, and the double corona with the inner corona forming a tube around the staminal column and possessing small lobes halfway down. The flowers, with respect to the corolla and staminal corona, are superficially similar to those of *Stapeliopsis neronis* Pillans (Bruyns 1981), *Echidnopsis malum* (Lavrinos) Bruyns (Bruyns 1988) and the recently described *Heterostemma vasudevani* Swarupanandan & Mangaly (Swarupanandan *et al.* 1989) of the Stapelieae. However, *G. pepo* is not closely related to the Stapelieae due to the pollinia lacking a pellucid margin, anthers with appendages and the presence of white latex. *G. pepo* is at first appearances very similar to *H. vasudevani* (which is probably a redescription of *Oianthus beddomei* J.D. Hook.), but the pollinaria of *H. vasudevani* have erect, ellipsoid pollinia with pellucid margins and short non-geniculate caudicles. There are also differences in the staminal corona tube, with that of *H. vasudevani* obviously resulting from five lobes being fused together, whereas in *G. pepo*, the degree of fusion is sufficiently advanced that the original five lobes comprising the tube are no longer discernable. Presumably the morphologically similar flowers of all four of these taxa mentioned here are a result of selection for similar pollination syndromes.

Geniculate caudicles are uncommon in Asclepiadaceae native to the Australian-Malesian region. They are present in *Sarcolobus* R. Br. (Rintz 1980a) but the caudicles in species of that genus are much longer than those of *Gunnessia*. In species of *Sarcolobus* the corolla is rotate and the tubular staminal corona is absent. The pollinaria of *Gunnessia* are similar to those of many species of *Tylophora* R. Br. particularly with respect to the globose pollinia, but in most other characters the flowers of these genera are quite dissimilar.

Etymology: The genus is named for Mrs Ann Guinness who first collected material of this plant and made valuable collections of plants in the Weipa area. The specific epithet alludes to the resemblance of the flower to the fruit of certain vegetable squashes in the family Cucurbitaceae.

Conservation status: Plants are common in the deciduous vine thickets at Weipa and at the Lockerbie Scrub. It is probably not endangered at present.

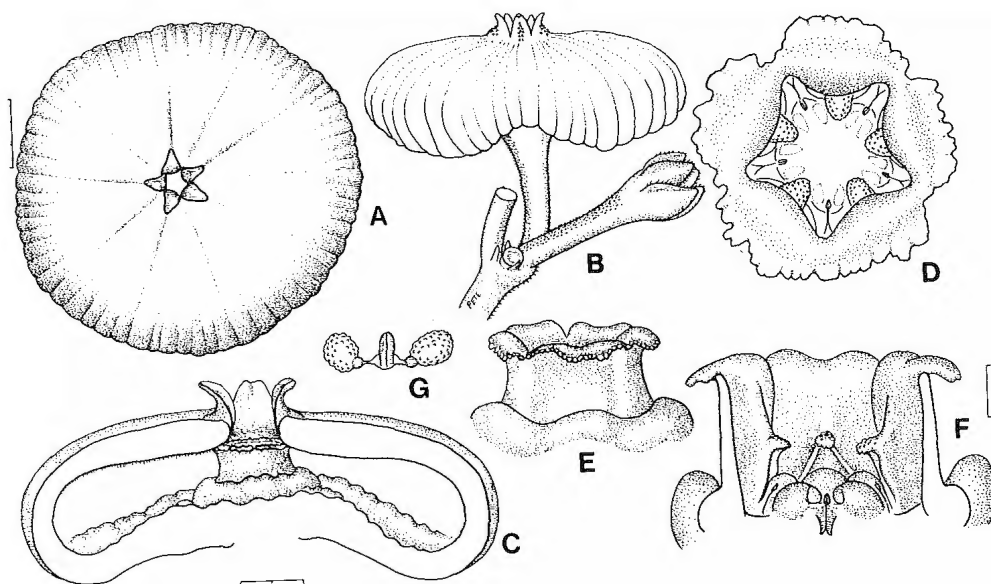


Fig. 5. *Gunnessia pepo*: A. apical view of corolla (scale 3 mm). B. lateral view of corolla (scale 3 mm). C. lateral view of dissected corolla showing staminal corona (scale 2 mm). D. apical view of staminal corona (scale 0.5 mm). E. lateral view of staminal corona (scale of A = 1 mm). F. lateral view of dissected staminal corona (scale 0.5 mm). G. pollinarium (scale of A = 0.25 mm). All from Gray 4268. Del. P. V. Bruyns.

3. MARSDENIA

Marsdenia velutina was described by Robert Brown from material he collected in 1803 in northern Australia and has been considered as endemic in Australia. When Schlechter (1914) renamed Warburg's *M. verrucosa* as *M. papuana* he commented that this species was very similar to *M. velutina* from northern Australia. A number of collections from New Guinea and the Solomon Islands are of *M. velutina* and show no differences from Australian material of it. From the description published by Warburg it is evident that *M. papuana* is conspecific with *M. velutina*.

Marsdenia velutina R. Br., Prodr. 461 (1810); *Pergularia velutina* (R. Br.) Sprengel, Syst. veg. 1: 844 (1820); *Tylophora velutina* (R. Br.) G. Don., Gen. hist. 4: 128 (1838). **Type:** Northern Territory, mainland opposite Groote Eylandt, 4 January 1803, R. Brown (lecto (here designated): BM, 2 sheets (photo BRI!)). Decne. in DC., Prodr. 8: 614 (1844); Benth., Fl. austral. 4: 338 (1869); Bailey, Queensl. fl. 3: 1008-1009 (1900); Funke, Ann. Jard. Bot. Buitenzorg 41: t. 18, fig. 24 (1930).

Marsdenia papuana Schltr., Bot. Jahrb. Syst. 50: 144 (1914) **synon. nov.**; *Marsdenia verrucosa* Warb., Bot. Jahrb. Syst. 13: 410 (1891) non *M. verrucosa* Decne. **Type:** not designated.

K. Schum., Fl. Kais.-Wilh. Land 141 (1889); K. Schum. & Lauterb., Fl. Schutzgeb. Südsee 514 (1905).

Marsdenia klossii S. Moore, Trans. Linn. Soc. London, Bot. 9: 112 (1916). **synon. nov.** **Type:** Canoe Camp, Utakwa River to Mt Carstensch, Dutch New Guinea, 1912-13, C.B. Kloss (holo: BM!).

A full description and citation of Australian collections will be given in my forthcoming revision of *Marsdenia* in Australia. The following material from New Guinea and the Solomon Islands belongs here.

Selected specimens. Irian Jaya. Rouffaer River, Aug 1926, *Docters van Leeuwen* 10083 (L; BO *n.v.*); Hollandia, Dec 1954, *McKee* 1793 (L). Papua New Guinea. BOUGAINVILLE: Siwai, Jul 1930, *Waterhouse* 160-B (A,L; K *n.v.*). EAST SEPIK DISTRICT: Augusta River, Oct 1910, *Gjellerup* 360 (A; BO *n.v.*). MADANG DISTRICT: Gogol Valley, 5°13'S, 145°35'E, Jan 1977, *Wiakabu et al.* LAE60369 (A; LAE *n.v.*). MOROBE DISTRICT: Umi River, 6°15'S,

146°15'E, Jan 1963, *Millar & van Royen* NGF15641 (BRI,CANB; LAE *n.v.*); Vicinity of Kajabit Mission, Aug-Dec 1939, *Clemens* 40845 (A,BRI); Boana, May-Nov 1940, *Clemens* 41626 (A), 41373 (A); Near Picra, c. 10 miles [16 km] SE of Garaina, Jan 1964, *Hartley* 12624 (A,BRI,CANB,L); Near Village of Yalu, c. 12 miles [20 km] NW of Lae, May 1963, *Hartley* 11875 (A,BRI,CANB,L); c. 2.5 miles [4 km] N of Gurukor, 6°50'S, 146°38'E, Feb 1962, *Hartley* 9912 (BRI,CANB); Near the Butibum River, c. 7 miles [12 km] N of Lae, May 1962, *Hartley* 10283 (A,BRI,CANB,L); near Markham River bridge, W of Lae, May 1960, *Thorne & Henty* 27540 (BRI,L). CENTRAL DISTRICT: Nebiri Quarry, Apr 1970, *Gebo* UPNG375 (BRI); Kokoda, Apr 1936, *Carr* 16362 (CANB); near Kokoda, Sept 1954, *Hoogland* 3907 (L). MILNE BAY DISTRICT: Rigo district, *Turner* [AQ217168] (BRI). PAPUAN ISLANDS: Dixons Bay, Bessels Is, Louisiade Group, Jan 1885, *Chalmers & Bridge* [AQ361109] (BRI). Solomon Islands. Waimamura, San Cristobel, Sep 1932, *Brass* 2832 (BRI; A *n.v.*); N of Palasu'u School, Small Malaita, Sep 1969, *Gafui* BSIP17307 (L); Matanikolo River, NW Guadalcanal, Nov 1967, *Nakisi, Ben & Mauriasi* BSIP8247 (L).

4. TYLOPHORA

As a precursor to publication of revisions of *Tylophora* R. Br. in Australia and New Guinea, it is useful to recognise the occurrence of *T. flexuosa* R. Br. in New Guinea. While it has not been possible to locate any type material of *T. perlaxa* Schltr., Schlechter's description correlates well with *T. flexuosa* and specimens collected by Brass from the Fly River belong to this latter species. Citation of Australian material and a description will be published in my forthcoming revision of the genus in Australia.

Tylophora flexuosa R. Br., Prodr. 460 (1810); *Hoya flexuosa* (R. Br.) Sprengel, Syst. veg. 1: 843 (1820); *Vincetoxicum flexuosum* (R. Br.) O. Kuntze, Revis. gen. pl. 2: 424 (1891). **Type:** Groote Eylandt, Northern Territory, January 1803, *R. Brown* (lecto (here designated): BM (photo BRI!); isolecto: CANB(CANB278897)).

Tylophora perlaxa Schltr., Bot. Jahrb. Syst. 40, Beibl. 92: 3 (1908), **synon. nov. Type:** British New Guinea, Fly River, November 1885, *W. Bauerlen* (holo: B†).

Specimens examined. Indonesia. Irian Jaya. Road from Mopa Airstrip to Manggatrikke, Merauke district, Aug 1954, *van Royen* 4560 (CANB; L *n.v.*); Bernhard Camp, Idenburg River, Apr 1939, *Brass* 13939 (A,BRI; CANB *n.v.*); Hamadi, Hollandia, Nov 1956, *v.d. Sijde* BW4116 (L; BO *n.v.*); Warmare Valley, c. 20 km SW of Manokwari, Jun 1962, *Koster* BW13985 (L). Papua New Guinea. MANUS DISTRICT: Near Pelikawa, 2°10'S, 149°50'E, Oct 1974, *Foreman & Katik* LAE59120 (BRI; A,CANB,K,L,LAE *n.v.*). WESTERN DISTRICT: Morehead River, 8°44'S, 141°38'E, Nov 1972, *Henty & Foreman* NGF49332 (BRI; A,BISH,BO,CANB,K,L,LAE,NSW,PNH, SING,US *n.v.*); Upper Wassi Kussa River (left branch), Jan 1937, *Brass* 8622 (BRI; A *n.v.*); Oroville Camp, Fly River (30 miles [50 km] above D'Albertis Junction), 1936, *Brass* 7440 (BRI; A *n.v.*). MOROBE DISTRICT: Mouth of Markham River, inlet of Lae Harbour, Markham Beach, Feb 1976, *Larivita & Henty* LAE70539 (BRI; L *n.v.*); Waigani swamp, Jan 1981, *Leach* UPNG3789 (A; BISH,G,L,LAE,M,MEL,NY *n.v.*). NORTHERN DISTRICT: 5 km E of Popondetta airport, near Sambogo River, 8°46'S, 148°22'E, Oct 1975, *Wiakabu & Kairo* LAE70293 (BRI; LAE *n.v.*). MILNE BAY DISTRICT: Bolu Bolu, Goodenough Is, Sep 1953, *Brass* 24367, 24448 (A). UNPLACED TO DISTRICT: Ira Tailala River, Mar 1926, *Brass* 1166 (A). Woodlark Is, Unkinbod Bay, Nov 1956, *Brass* 28760 (A; L *n.v.*).

5. DISCHIDIA

Schlechter in his studies of Malesian Asclepiadaceae, recognised four segregate genera in addition to *Dischidia* R. Br., namely *Conchophyllum* Blume, *Dischidiopsis* Schltr. (Schlechter & Warburg 1904), *Spathidolepis* Schltr. (Schlechter 1905) and *Oistonema* Schltr. (Schlechter 1908). None of these can be maintained when the modern concept of *Dischidia* proposed by Rintz (1980b) is followed. The types of *Dischidiopsis* (*D. philippinensis* Schltr.) and of *Oistonema* (*O. dischidioides* Schltr.) are based on material from the Philippines and Borneo respectively, whereas no type was designated for *Conchophyllum*. *Dischidiopsis*, *Oistonema* and *Conchophyllum* are not considered further here as *Dischidia* is in need of revision in Malesia and names may already be available in *Dischidia* for those particular species.

As part of my studies on the Asclepiadaceae of Papuaia, however, I have had to critically examine the status of *Spathidolepis*. In describing *Spathidolepis*, Schlechter (1908) considered the single species, *S. torricellensis* Schltr. close to *Dischidia* but differing from it in the small coronal lobes and the thin leathery leaves. Neither of these characters is a valid distinguishing feature. Species such as *D. superba* Rintz have similar small coronal lobes (Rintz 1979) and while many *Dischidia* species have fleshy leaves, there is a complete gradation from species with fleshy ones to others with membranous ones. An isotype of *S. torricellensis* at K lacks flowers; however its foliage can be matched with that of several fertile specimens from New Guinea. These collections match the floral description given by Schlechter for *S. torricellensis* and are also recorded as collected from a habitat type similar to that recorded for *S. torricellensis*. Hence they are considered as conspecific with the type collection.



Fig. 6. Specimen of *Dischidia torricellensis* (Schltr.) P. Forster (Brass 12915) at BRI.

Dischidia torricellensis (Schltr.) P. Forster **comb. nov.**

Spathidolepis torricellensis Schltr. in Schumann & Lauterb., Nachträge Fl. Schutzgeb. Südsee 356 (1905). **Type:** Nordöstl. New-Guinea: auf Bäumen in den Wäldern des Torricelli-Gebirges, April 1902, R. Schlechter 14445 (holo: B†; iso: K (photo BRI!)).

Schltr., Bot. Jahrb. Syst. 50: 95 (1914).

Epiphytic perennial liane. Stems cylindrical, to 2 mm diameter, with sparse short indumentum of uniseriate hairs; internodes to 9 cm long. Leaves petiolate; lamina coriaceous, glabrous, lanceolate-elliptic, 5–9 cm long, 1–3 cm wide, with obvious reticulate venation, mid-rib raised abaxially, sunken adaxially; apex caudate to cuspidate, obtuse at tip; base cuneate; secondary veins 16–17; petiole grooved adaxially, 2–3 mm long, c. 1 mm diameter; extrafloral nectaries 2 at base of lamina. Inflorescence an umbelliform raceme-like cyme to 5 mm long; bracts triangular, c. 1 mm long and 1 mm wide, with sparse indumentum; peduncle to 1 cm long and c. 2 mm diameter. Flowers urceolate, 3–4 mm long and 2–4 mm diameter; pedicels 2–4 mm long, c. 0.5 mm diameter, with dense indumentum. Sepals oblong, c. 2 mm long and 1 mm wide, ciliate, with 1 or 2 glands at base of each sinus. Corolla white; tube 2–3 mm long, 2–3 mm diameter, glabrous externally and internally; petals erect, ovate, fused for two-thirds of length, each strongly jointed in middle and with tips reflexed, c. 2 mm long and 2.5 mm wide; externally glabrous, internally with region of dense antrorse hairs to c. 1 mm long in centre of petal, blocking entrance to tube. Staminal corona c. 1 mm long and 2 mm diameter, attached to bottom of staminal column and consisting of 5 separate lobes; each lobe spatulate-obovate and recurved-winged at base on either side, entire lobe c. 0.75 mm long and 0.75 mm wide, wings 0.3–0.4 mm wide. Staminal column c. 1.5 mm long and 1 mm diameter. Anther appendages oblong-obtuse, incurved over style-head, 0.5–0.75 mm long, c. 0.25 mm wide. Slit between anther wings c. 0.75 mm long. Style-head elongate-conical, c. 0.75 mm long, 0.25 mm diameter at tip and 0.75 mm diameter at base. Ovaries c. 1 mm long, glabrous. Pollinaria c. 0.4 mm long and 0.26 mm wide; pollinia held erect, oblong, 0.35–0.37 mm long, c. 0.1 mm wide; corpusculum oblong, 0.2–0.25 mm long, c. 0.08 mm wide; caudicles winged, c. 0.15 mm long and 0.1 mm wide. Follicles fusiform (immature), glabrous, 11–12 cm long, c. 2 mm diameter. Seed not seen. **Fig. 6.**

Specimens examined. Irian Jaya. Jayapura: 6 km SW of Bernhard Camp, Idenburg River, Feb 1939, Brass 12915 (BRI; A n.v.); Rouffaer River, Sep 1926, Docters van Leeuwen 10275 (L; BO n.v.).

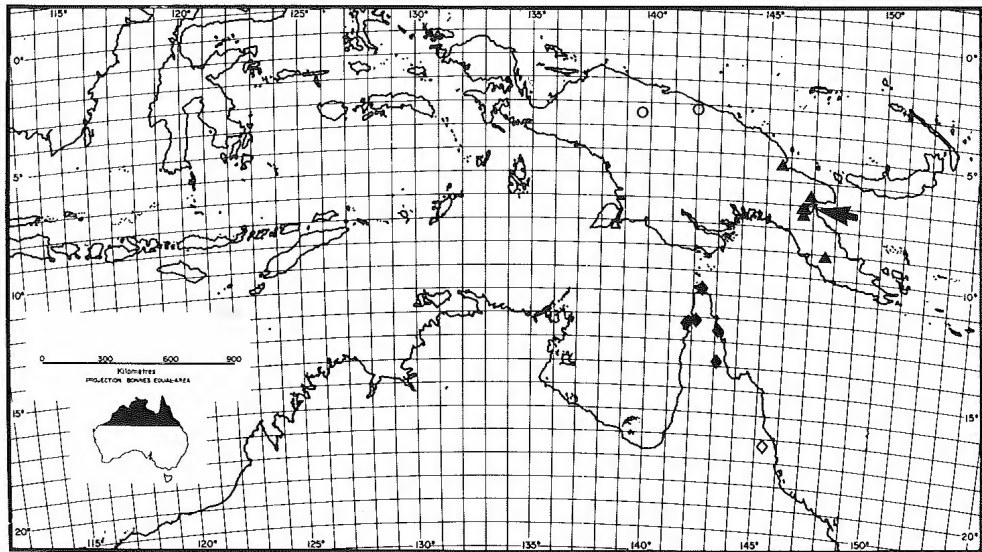
Distribution and habitat: Known only from the Torricelli Mountains, Idenburg River and Rouffaer River areas (**Map 1**) where it grows as an epiphyte in rainforests over 1000 m alt.

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Map 1. Distribution of *Cryptolepis nymanii* (▲), *C. papillata* (▽, arrowed), *C. grayii* (◇), *Gunnessia pepo* (◆) and *Dischidia torricellensis* (○).

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